



Features and Benefits

Frequency range: 10-100MHz
Supply voltage: 12.0/5.0V
Steady state: 2.0W Typ
Output waveform: Sinewave or CMOS/TTL
Frequency stability vs. operating temperature: ±20.0ppb
Aging per year: ±100ppb Max
Phase noise@1KHz: -150dBc/Hz
Operating temperature: -40°C to +85°C
Size:36x27x12.7mm

Typical Applications

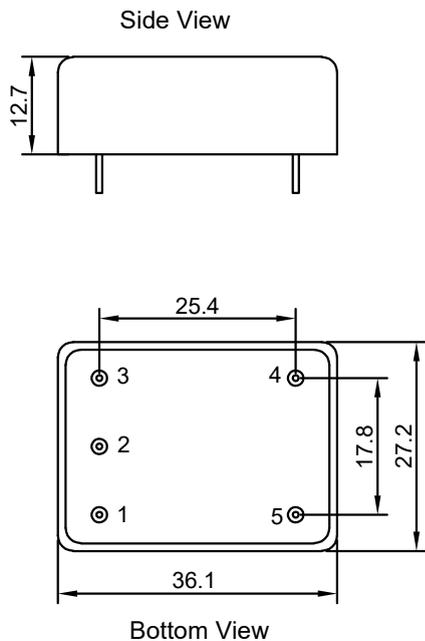
Cellular Base Stations
Instrumentation
Microwave Applications
Radar reference

Description

The OCXO3627AX is designed for applications where exceptional frequency stability and timing is required. It has both excellent temperature performance and short-term stability. These characteristics make it an excellent choice for timing applications.

Mechanical Drawing & Pin Connections

Drawing No: MD24002- -1



Pin Connections:

Pin#	Function
1	Control Voltage
2	N.C.
3	Supply Voltage
4	Output
5	GND

Unit in mm
1mm = 0.0394 inches



Specifications

Oscillator Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Frequency Range	F _{nom}		10		100	MHz	
RF Output							
Signal Waveform			CMOS/TTL				
Load	R _L			15		pF	
H-Level Voltage	V _H		90%Vcc			V	
L- Level Voltage	V _L				10%Vcc	V	
Duty Cycle			45	50	55	%	
Rise/Fall time					10	ns	
Sinewave							
Signal Waveform				+7		dBm	
Level							
VSWR		Into 50ohm		1.5:1			
Load			45	50	55	ohm	
Harmonics					-30	dBc	
Power Supply							
Supply Voltage	V _{cc}			12.0/5.0		V	
Warm-up Time	T _{up}	To initial tolerance			3	min	
Power Consumption		Steady state, +25°C		2.0		W	
		Warm-up			7.0	W	
Frequency Adjustment Range							
Electronic Frequency Control (EFC)			±0.5 or ±1.0			ppm	
EFC voltage	V _c		0	V _{cc} /2	V _{cc}	V	
Input Impedance				100		k Ω	
Linearity				10		%	
EFC Slope				positive			
Frequency Stability							
Versus Operating Temperature Range		Reference to +25°C		±20, ±50 or ±100		ppb	
Initial Tolerance		+25°C±1 °C			±100	ppb	
Versus supply voltage		±5% change		±2		ppb	
Versus load		±5% change		±2		ppb	
Aging Per Day		after 30 days of operation			±1.0	ppb	
Aging 1 st Year						±100	
SSB Phase noise (10MHz)		1Hz			-90	dBc/Hz	@+25°C
		10Hz			-120	dBc/Hz	
		100Hz			-145	dBc/Hz	
		1kHz			-150	dBc/Hz	
		10kHz			-155	dBc/Hz	
	100kHz			-160	dBc/Hz		
Environmental, Mechanical Conditions							
Operating temperature range		-20°C to +70°C, -40°C to +85°C					
Storage temperature range		-55°C to +100°C					